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Multilevel Worksite Wellness Intervention to Improve Individual Behaviors and the Worksite
Environment

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Abstract

Due to increasing obesity rates, public health approaches must focus on improving healthy behaviors and reducing the risk of obesity-related health problems (“Nebraska State Nutrition Profile,” 2012; “State of Obesity,” 2016). Worksites offer opportunities to stimulate behavior change through environmental supports and provide natural structures for social support; therefore, worksites are ideal locations for teaching and implementing health promotion programs (Beresford et al., 2001; Salinardi et al., 2013; Sorensen et al., 1996; Touger-Decker et al., 2008). The Social Ecological Model (SEM), which illustrates that various factors are intertwined at multiple levels to influence behaviors, has been shown to produce significant results when used in health promotion interventions (Beresford et al., 2001; McLeroy, Bibeau, Steckler & Glanz, 1988; Sorensen et al., 2004; Sorensen, Linnan & Hunt, 2004).

This study was a multiple case-study design with a pretest-posttest evaluation of a multileveled intervention informed by the SEM, and strived to answer the following research question: to what extent does a healthy work environment, measured by a health-related environmental audit with organizational feedback, and individually targeted, existing, evidence-based intervention change employee behaviors? Seven businesses, roughly 575 total employees, within the Four Corners Health Department district were recruited to participate in the worksite wellness program called “Path to Wellness...Eat Fit Thrive.”

At the individual level, the SuperTracker Worksite Wellness Toolkit, an evidence-based program that provides employees with personalized recommendations, helps in creating health goals, and can easily track calorie consumption, energy expenditure and change in weight over time, was utilized. The toolkit incorporates the SuperTracker, a free, online diet and physical activity tracking tool, which was implemented to improve healthy eating and assess behavior

change. Individual assessments included physical measurements as well as a questionnaire that analyzed dietary behaviors. The intervention was administered over eight weeks, and physical and behavior changes were measured.

The Checklist of Health Promotion Environments at Worksites (CHEW) is an auditing tool that was used to evaluate the physical and informational environments of each worksite. The entire CHEW assessment was completed during the pretest phase of the study. Individual and overall reports of the businesses were composed and given to employers to display positive characteristics of the worksite, areas that could be improved to create a healthier work environment, and the accrued participant results.

Seventy-five participants were enrolled in the program, and fifty-two participants completed the post-assessment. This study found that participants in the multilevel intervention significantly improved various health measures, including weight ($p=0.001$), BMI ($p=0.001$), eating habits ($p=0.001$), waist circumference ($p=0.009$), minutes of physical activity per day ($p=0.016$), and systolic blood pressure ($p=0.025$).

Public health professionals need to think upstream and recognize the impact that multilevel interventions could have on the health and well-being of their communities. Finding the most effective and efficient ways to improve healthy behaviors and reduce the risk of obesity-related health problems is crucial, as obesity has become a national epidemic. Multilevel interventions targeting health promotion might be an approach that significantly reduces this chronic disease.

Introduction

Placement Site

The Four Corners Health Department was established in February 2003 being one of the 18 local health departments in Nebraska that was created as a result of LB692, which provides funding for local public health departments through the County Public Health Aid Program (DHHS, 2014). The Four Corners Health Department serves Butler, Polk, Seward, and York Counties. The department has grown to include health surveillance, public health nursing services, medication assistance, emergency preparedness planning, pandemic preparedness, car seat fitting stations, bicycle safety, cancer control coalition, and many other health promotion, prevention, safety, and preparedness activities. Four Corners' mission statement and purpose is to "promote health, prevent disease and protect the environment, improving the health of the Four Corners community" ("Four Corners Health Department," 2017).

Issue

Obesity is a national epidemic and is known to cause deadly diseases including coronary heart disease, stroke, diabetes, and cancer ("The Obesity Epidemic," 2013). Therefore, it is critical that public health approaches focus on improving healthy behaviors and reducing the risk of obesity-related health problems. Nebraska has the 13th highest obesity rate in the nation with more than 32 percent of adults being obese ("State of Obesity," 2016). Further, the obesity rate shows no sign of declining as it has increased by five percent since 2010 ("Nebraska State Nutrition Profile," 2012; "State of Obesity," 2016).

The population that the Four Corners Health Department serves, unfortunately, has similar statistics. Obesity was deemed a strategic issue in their 2011 Community Health

Assessment as the obesity rate in their population was notably higher than Nebraska's overall obesity rate ("Behavioral Risk Factor Surveillance System," 2010). Further, community members ranked "being overweight" as the largest health problem in their community ("Community Themes and Strengths Assessment," 2012).

One of the ways that the Four Corners Health Department is trying to reduce obesity in their community is through worksite wellness programs. In previous worksite wellness programs, Four Corners has used evidence-based programs provided by the Centers for Disease Control and Prevention (CDC); however, these programs have only focused on the individual level (C. Blanke, personal communication, October 26, 2017).

Background

Worksites are opportune locations to conduct wellness programs since adults spend the majority of their time at work (Beresford et al., 2001; Sorensen, Linnan & Hunt, 2004; Thompson, Smith & Bybee, 2005; Touger-Decker, O'Sullivan-Maillet, Byham-Gray & Stoler, 2008). Not only do worksites provide access to approximately 65 percent of adults, but the majority of these adults consume one or more meals at their worksite daily (Beresford et al., 2001; Touger-Decker et al., 2008). Workplaces offer opportunities to stimulate behavioral change through environmental supports and provide natural structures for social support; therefore, worksites are ideal locations for teaching and implementing health promotion programs (Beresford et al., 2001; Salinardi et al., 2013; Sorensen et al., 1996; Touger-Decker et al., 2008).

The Social Ecological Model (SEM) illustrates that multiple factors are intertwined at the individual, interpersonal, organizational, community and policy levels to influence one's behaviors (Figure 1) ("Social Ecological Model," 2015). The SEM is "a useful framework for

intervening on mediating mechanisms at multiple levels of influence, one that promotes change not only in individuals but also in organizations and policies,” (Sorensen, Barbeau, Hunt & Emmons, 2004 p. 230). Studies that have used this model have found significant results because a multilevel approach increases the overall effectiveness of the intervention (Beresford et al., 2001; McLeroy, Bibeau, Steckler & Glanz, 1988; Sorensen et al., 2004; Sorensen, Linnan & Hunt, 2004).

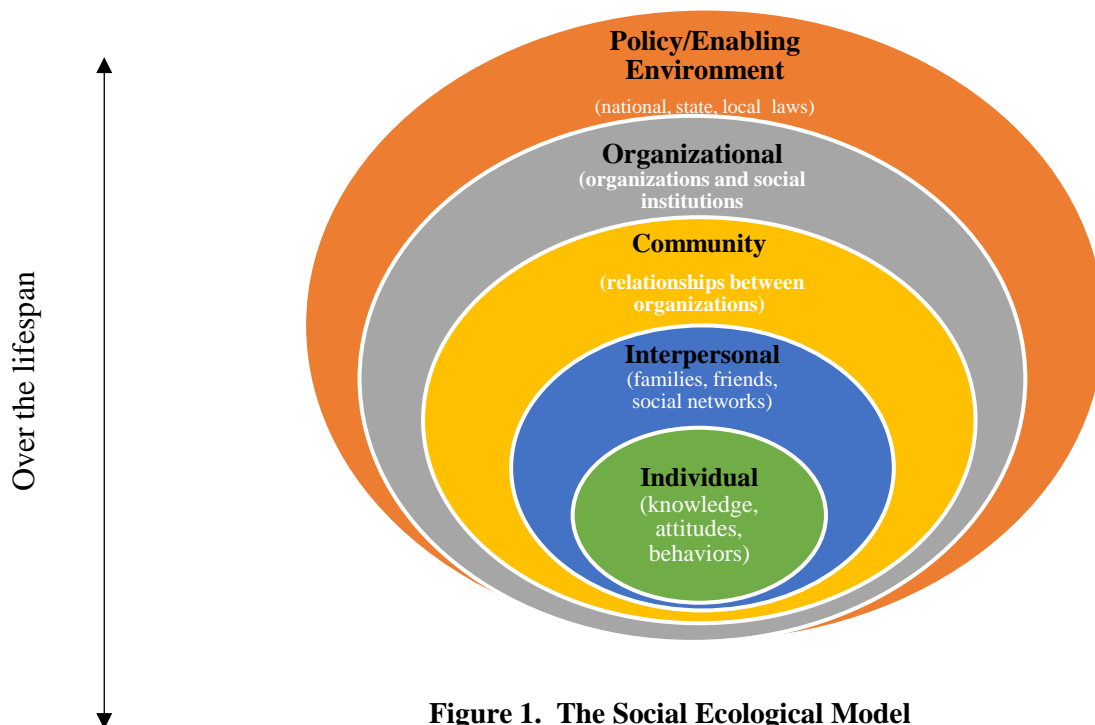
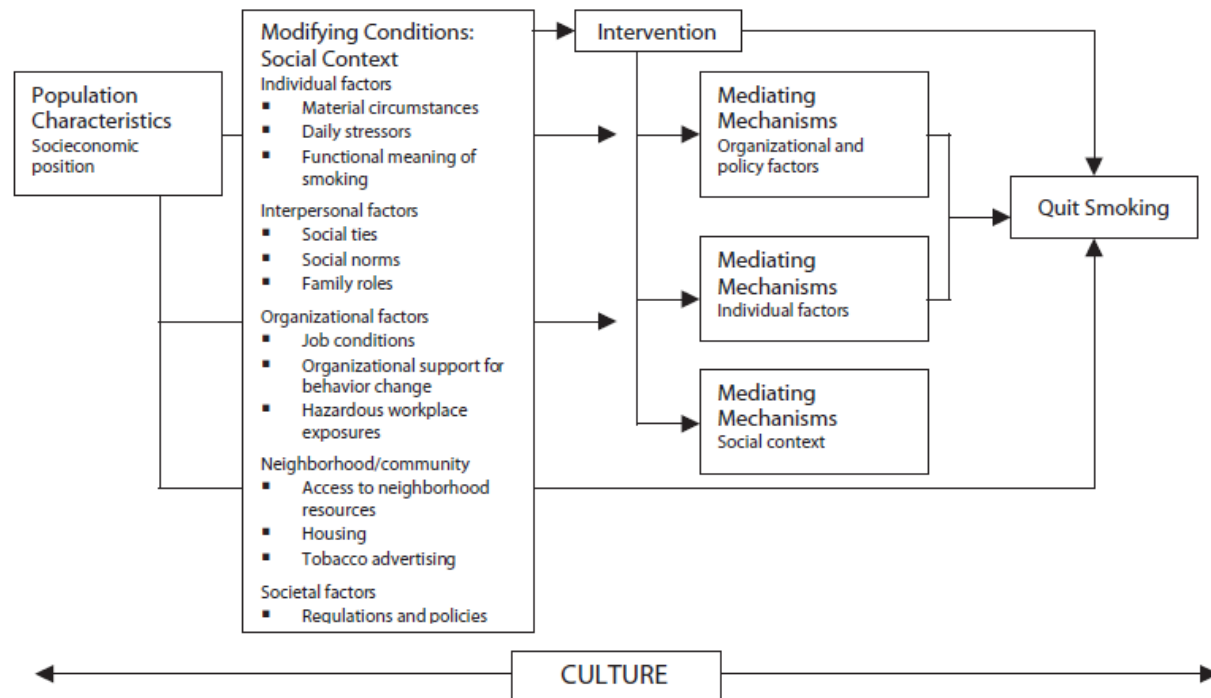


Figure 1. The Social Ecological Model

Sorensen et al. (2004) provide an example of how to apply the SEM in workplaces and how the SEM can help identify factors that are usually untargeted to reduce unhealthy behaviors, such as the use of tobacco. In Figure 2, Sorensen et al. (2004) explain that modifying conditions are the overlooked elements that may be impacting the effectiveness of a single level intervention. Thus, an intervention's efficiency can be improved by identifying modifying conditions and ways to facilitate behavior change (mediating mechanisms) at multiple levels of the SEM that can be incorporated into the intervention (Sorensen et al., 2004). This particular

study focuses on reducing tobacco use in the workplace; however, the model can be adapted to help modify various behaviors (Sorensen et al., 2004).



Source. This figure is adapted from Sorensen et al.⁹³

Note. HP = worksite health promotion only; HP/OSH = worksite health promotion plus occupational safety and health.

FIGURE 2—A social-contextual model for tobacco control.

Environmental Level

The Checklist of Health Promotion Environments at Worksites (CHEW) includes 112 characteristics created to measure environmental attributes in the workplace that could affect specific behavior choices including nutrition, physical activity, tobacco use, and alcohol consumption (Oldenburg et al., 2002). This assessment tool is considered to have acceptable face validity and is highly reliable with intraclass correlation coefficients in a range of 0.8 to 1.0 (Oldenburg et al., 2002). Multiple studies chose to use the CHEW as an accurate representation

of the physical and informational environment in the workplaces (Hersey et al., 2008; Nigg et al., 2010; Pratt et al., 2007; Williams et al., 2007).

Individual Level

The SuperTracker Worksite Wellness Toolkit is an eight-week, evidence-based program that provides employees with personalized nutrition and physical activity recommendations, helps in creating personal health goals, and can easily track calorie consumption, energy expenditure and change in weight over time (“SuperTracker,” 2014). Another feature allows for individual and group progress reports to be obtained in which caloric intake and energy expenditure can be analyzed (“SuperTracker,” 2014). The toolkit utilizes the SuperTracker, a diet and physical activity tracking tool designed to “assist individuals as they make lifestyle changes to reduce the risk of chronic disease and maintain a healthy weight,” (“SuperTracker,” 2014). The toolkit also consists of ways to introduce employees to the SuperTracker, training videos, and weekly motivational quotes, activities, and tips (“SuperTracker,” 2014).

Although little research has reported on the effectiveness of the SuperTracker in worksites, studies suggest the tracking tool is feasible and acceptable in school systems (Castellanos, 2017; King-Mark, 2016). The SuperTracker has also been found to foster an improvement in school-age children’s daily consumption of fruits and vegetables (Tucker et al., 2010). Further, according to Post, Herrup, Chang, and Leone (2012), SuperTracker users feel more empowered to improve their healthy eating habits.

In this study, a multileveled intervention was implemented to determine if significant results could be achieved by focusing on the individual level as well as the environmental level with the SEM as the underlying theory. The goal of this research was to significantly improve the health of the businesses’ employees through individual changes and environmental

assessments. This project strived to answer the following research question: to what extent does a healthy work environment, measured by a health-related environmental audit with organizational feedback, and individually targeted, existing, evidence-based intervention change employee behaviors?

Methods

The project was a multiple case-study design with a pretest-posttest evaluation of a multileveled intervention informed by the SEM. One element of the study utilized an instrument to audit each worksite as an actionable tool for change and evaluation. Additionally, at the individual level, an evidence-based intervention was implemented to improve healthy eating and assess behavior change. The worksite wellness program was titled, “Path to Wellness... Eat Fit Thrive.”

The Reach Effectiveness Adoption Implementation Maintenance (RE-AIM) framework guided the study for planning and evaluation purposes (Glasgow, Vogt & Boles, 1999). The RE-AIM framework helped to evaluate areas such as the proportion of employees that are reached by the intervention and the representativeness of the study population compared to the overall business population (Glasgow, Vogt & Boles, 1999).

Study Population

Seven businesses employing approximately 575 workers were recruited by the Four Corners Health Department for the study (Table 1). Only one of the recruited businesses had never participated in a previous worksite wellness program conducted by the Four Corners Health Department. All of the worksites had active wellness teams, who helped promote the program through email and fliers provided by the research team. Participants had to be 19 years or older, complete a consent form, and be an employee at the company for at least the duration of

the study. As a multiple case study, all employees were encouraged to participate in the intervention at each worksite. However, participants who did not speak either the English or Spanish language were excluded from this study; although, there were no requests from employers for materials in any other languages.

Name of Business	Estimated Number of Employees	Type of Business	Location
Breeza Industrial	18	Manufacturing	Utica, NE
David Place	100	Long Term Care/ Health Services	David City, NE
Four Corners Health Department	9	Public Health	York, NE
Frontier Cooperative (Corporate Office)	26	Agricultural Service	Brainard, NE
Jones Bank	50	Banking	Seward, NE
Ridgewood Long Term Care and Rehab	140	Long Term Care/ Health Services	Seward, NE
UTC Aerospace Systems	230	Manufacturing	York, NE

Table 1. List of businesses recruited for study.

Data Collection Methods

Individual Level Measure

Pre-assessments were conducted prior to the start of the eight-week intervention. The pre-assessment consisted of physical measurements including, body mass index (BMI), blood pressure, waist circumference, and the number of minutes per day and days per week that participants are physically active (Appendix A). Weight, waist circumference, and blood pressure were measured and recorded by a researcher. The participants' height, number of minutes of physical activity per day and days of physical activity per week were self-reported. A questionnaire was also administered at this time to assess self-reported dietary behaviors such as the consumption of fruits and vegetables, sugar-sweetened beverages, and unhealthy foods

(Appendices A and B) (Paxton et al., 2011). A lower overall score indicated healthier eating habits, while a higher overall score implied that there was room for improvement with 16 being the highest possible score (Paxton et al., 2011). Participants who completed the pre-assessment were given a start-up packet that included information about the SuperTracker, safety tips during physical activity, and the schedule of the intervention.

After the pre-assessments were completed, the SuperTracker was introduced to the employees through email and fliers approximately one week before the program start date. The material in the SuperTracker Worksite Wellness Toolkit was used as a guide for the health topic that was introduced each week (“SuperTracker,” 2014). Throughout the Path to Wellness... Eat Fit Thrive program, employees were emailed motivational quotes and tips at the beginning of each week, which ran from Wednesday to Tuesday. Supplementary handouts that complemented the weekly topics were selected by the researchers and included in the emails. Handouts were also chosen based on participants’ goals and suggestions gathered during the pre-assessments. In addition to email, employees were exposed to this information through a private Facebook group, a portal through the Four Corners Health Department’s website, and a paper packet for those who did not have regular access to a computer or the internet. Materials were provided in both the English and Spanish language.

Two different web-based tools were utilized throughout the program. The SuperTracker, implemented throughout the entire intervention, was the tool that participants used to enter in the types of food and serving sizes. At the beginning of the fourth week of the intervention, participants were invited to join a SuperTracker “MyPlate Challenge.” Throughout the challenge participants from each business competed against co-workers to earn points gathered from tracking healthy foods in a tool called the “QuickTracker” (“SuperTracker,” 2014). Each week

participants were introduced to a new food group that they could earn points for eating and tracking (Figure 3). The competition lasted for the remaining five weeks of the intervention.



Figure 3. The MyPlate Challenge Schedule demonstrates the items that participants could earned points for tracking each week of the challenge (“SuperTracker,” 2014).

Weekly progress reports were obtained to assess any changes in the employees’ daily tracking. Information that was recorded in the report included the number of meals each participant tracked per day and the number of points that each participant accumulated every week through the QuickTracker.

An onsite “midterm check” was offered to all businesses approximately four weeks into the program. At this time, participants could meet with the researchers to ask questions about the SuperTracker, QuickTracker, or other aspects of the program, and check their weight and blood pressure.

When the Path to Wellness...Eat Fit Thrive program was completed, employees were reassessed. The posttest included the same physical measurements that were taken in the pretest as well as the nutritional survey (Appendix B). Personal identifiers including name, date of birth,

and email address were acquired at the time of the pre-assessment and post-assessment to ensure that the tests were appropriately matched. The data was then coded and de-identified to ensure confidentiality. At this time, participants were also asked to fill out an anonymous feedback form, which provided individuals an opportunity to share their opinions of the program.

There was an incentive to complete both the pretest and posttest. After the participant completed both the pre- and post-measurements and questionnaire, he or she was able to enter a lottery for a winning of \$100.00, which was donated by the University of Nebraska Medical Center. These participants were also offered a choice between two informational books on nutrition and physical activity, provided by the Four Corners Health Department. Participants who met the minimum tracking requirements were also awarded various fitness prizes including exercise bands and water bottles, also provided by the Four Corners Health Department. The minimum tracking requirements included tracking at least five days per week and three meals per day or earning at least 150 points per week for four out of the five weeks during the SuperTracker MyPlate Challenge.

Environmental Level Measure

The entire CHEW assessment was completed during the individual pretest phase of the project. During the assessment, with the help of a knowledgeable workplace employee who acted as a guide, a tour of the facilities was conducted, and direct observation of various components of each worksite's physical, informational, and neighboring environments occurred. The assessment focused particularly on lunchrooms, vending machine areas, stairwells, and bulletin boards (Appendix C) (Oldenburg et al., 2002).

Individual reports of the businesses were composed and given to employers to display positive characteristics of the worksite, areas that could be improved to create a healthier work

environment, and the accrued participant results (Appendix D). Based on the environmental evaluation, a tailored menu of recommendations was provided to encourage businesses to create a healthier work environment. Additionally, an overall report across all businesses was presented to each worksite as well as to the Four Corners Health Department, which could be used for future needs assessments (Appendix E).

Statistical Analysis

Using IBM SPSS Statistical Software, descriptive statistics, paired samples t-tests and independent samples t-tests were conducted to analyze the results of the change in employees' physical measurements and other continuous measures. The independent samples t-tests were used to compare the outcomes of participants who were considered "Trackers" and "Non-Trackers" after calculating the differences between the pretest and posttest. Paired samples t-tests were used to measure the change between the pretest and posttest results for the accrued participants as well as the individuals' results separated by businesses. Due to the small sample of worksites, the CHEW related outcomes were reported descriptively.

Results

Individual Level Results

Seventy-five participants were successfully enrolled into the program. Of those who started, 69.3 percent were female. Fifty-two participants completed the program and table 2 shows the number of employees that finished the program from each worksite. Thus, there was approximately a 73 percent completion rate for the Path to Wellness...Eat Fit Thrive program.

Name of Business	Number of Employees that Started the Program	Number of Employees that Completed the Program	Type of Business	Location
Breeza Industrial	7	6	Manufacturing	Utica, NE
David Place	9	4	Long Term Care/ Health Services	David City, NE
Four Corners Health Department	6	6	Public Health	York, NE
Jones Bank	12	12	Banking	Seward, NE
Ridgewood Long Term Care and Rehab	8	3	Long Term Care/ Health Services	Seward, NE
UTC Aerospace Systems	18	15	Manufacturing	York, NE
Frontier Cooperative	16	9	Agricultural Service	Brainard, NE

Table 2. List of businesses recruited for study, the number of employees that started, and the number of employees that completed the program.

Table 3 summarizes data gathered during the weekly progress report that recorded participants' tracking levels. There was a decrease in the number of participants who used the SuperTracker to track food and physical activity over the course of the program. However, the number of participants who utilized the QuickTracker during the MyPlate Challenge seemed to remain fairly constant (Table 3). A common theme among all participants' in the program was the difficulty in entering foods and the extensive time involved with the SuperTracker, but participants also commented that the QuickTracker was easy to use (Appendices D and E).

	Number of Participants who:							
	MyPlate Challenge Participation	SuperTracker Participation	Tracked all 7 days in SuperTracker	Tracked 6 days in SuperTracker	Tracked 5 days in SuperTracker	Tracked 4 days in SuperTracker	Tracked 3 days in SuperTracker	Tracked 2 days in SuperTracker
Wk 1	N/A	19	4	1	2	1	2	3
Wk 2	N/A	12	6	1	1	0	0	2
Wk 3	N/A	10	4	2	1	0	1	2
Wk 4	6	10	4	2	0	1	0	1
Wk 5	10	8	1	2	0	1	1	2
Wk 6	8	6	2	1	0	0	0	1
Wk 7	10	5	2	0	1	0	0	1
Wk 8	9	4	0	0	0	0	1	1

Table 3. The employee participation report throughout the intervention.

On average, participants significantly improved their dietary behaviors by decreasing the score on their nutritional survey by nearly 1.8 points with a 95 percent confidence interval of

-2.4 and -1.2 (Table 4). Participants also lost a significant amount of weight during the intervention ($p = 0.01$). The average weight loss was 3.7 pounds with the most being 19.4 pounds. Additionally, participants decreased their waist circumference by a half inch, on average ($p=0.009$). Other significant results include a decrease in BMI ($p=0.01$), increase in physical activity ($p=0.016$), and a decrease in systolic blood pressure ($p=0.025$). Further results are shown in table 4.

	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-1.79	2.10	-2.37	-1.20	0.001
Waist Circumference (in.)	-0.51	1.33	-0.89	-0.13	0.009
BMI	- 0.65	0.97	-0.92	-0.38	0.001
Weight (lbs.)	-3.73	5.76	-5.34	-2.13	0.001
Physical Activity (Minutes/Day)	8.77	25.32	1.72	15.82	0.016
Physical Activity (Days/Week)	0.37	1.41	-0.03	0.76	0.068
Systolic (bpm)	-2.87	8.77	-5.25	-0.37	0.025
Diastolic (bpm)	-1.00	6.93	-2.93	0.96	0.303

Table 4. Differences in all individuals' pretest and posttest measurements.

Results separated by worksite can be found in Appendix F. UTC Aerospace Systems had the most significant changes including an average decrease of almost five pounds ($p=0.002$), an average 0.85 reduction in BMI ($p=0.001$), an average decrease of one inch in waist circumference ($p=0.024$), and an improvement in the nutritional survey ($p=0.020$). Ridgewood Long Term Care and Rehab participants significantly decreased their waist circumference by an average of 1.5 inches ($p=0.035$). Jones Bank averaged over a two-point reduction on their nutritional survey ($p=0.002$). Additionally, David Place improved in both of these measurements.

Their participants managed to significantly reduce their nutritional survey scores by over four points ($p=0.042$) and decrease their average waist circumference by 0.94 inches ($p=0.036$).

There were no significant differences between males and females who completed the program. Likewise, when participants were grouped into “Trackers,” individuals who fulfilled the minimum tracking requirements and received a prize during the post-assessments, and “Non-Trackers,” those who did not meet the minimum requirements, there were no significant differences in their outcomes besides waist circumference. The “Trackers” significantly decreased their waist circumference compared to the “Non-Trackers,” ($p=0.049$; 95% CI [-1.68, -0.003]).

Environmental Level Results

Environmental Variable	Frequency
Average water coolers and fountains	1.43
Percentage of vending machine slots with regular soft drinks/All drink slots	37.2%
Percentage of vending machine slots with bottled water/All drink slots	7.1%
Percentage of vending machine slots with low-fat or low-sugar snacks/All snack slots	1.3%
Percentage of businesses with signs encouraging low-fat items	28.6%
Average number of health promoting posters	4.48
Percentage of businesses with walking paths	71.4%
Percentage of businesses with at least one stairwell	42.9%

Table 5. Frequencies of environmental variables measured with the CHEW across all businesses.

Table 5 displays the results of various items that were observed during the CHEW assessment. Interestingly, the two businesses with the most low-fat or low-sugar snack options in vending machines, UTC Aerospace Systems and David Place, significantly improved their nutritional survey scores. Another interesting outcome was that almost all businesses with a walking path on the grounds increased their average physical activity; however, there were no significant improvements in this measurement (Appendix F).

Discussion

The Path to Wellness...Eat Fit Thrive worksite wellness program strived to answer the following research question: to what extent does a healthy work environment, measured by a health-related environmental audit with organizational feedback, and an individually targeted, existing, evidence-based intervention change employee behaviors? We found that participants in the multilevel intervention significantly improved various health measures, including weight, BMI, eating habits, waist circumference, minutes of physical activity per day, and systolic blood pressure. Further, these results did not significantly differ between males and females.

The majority of the participants in the Path to Wellness... Eat Fit Thrive were female; however, we hypothesize that the majority of employees at the recruited businesses are male. A possible explanation for the variation might be that men tend to shy away from programs that involve tracking food intake, or perhaps weight loss interventions in general (Williams, Wood, Collins & Callister, 2015).

Throughout the SuperTracker portion of the intervention, there was a decrease in the overall participation, which could be because the tracking tool was reported as not user-friendly. Participants suggested that the SuperTracker should include more of a variety of foods in the tracking menu and the ease of logging food and physical activity needed to be addressed. Many participants commented that the SuperTracker was not as convenient as other tracking programs. For example, although we were able to make the SuperTracker look like an application on participants' smartphones by saving the website to their home-screen, the website was hard to navigate on their devices. The lack of participation in the SuperTracker may also be explained by the simple fact that participants were adults. Although the SuperTracker was easy to use for

adolescents, adults may have a harder time navigating the website and logging information (Castellanos, 2017).

An interesting observation from this project was that there was only one significant difference in the results between the participants who consistently used the SuperTracker and those who did not. Therefore, the SuperTracker may not have been the resource that helped participants significantly improve their measurements. Additionally, there were no apparent relationships between participants' results and the businesses' environments. However, these results may show the importance of utilizing the SEM and implementing multilevel interventions, which has been supported by many other studies (Beresford et al., 2001; McLeroy, Bibeau, Steckler & Glanz, 1988; Sorensen et al., 2004; Sorensen, Linnan & Hunt, 2004). Collectively, the weekly emails guided by the SuperTracker Worksite Wellness Toolkit, complimentary handouts, and the business' environment may have all influenced the employees' health outcomes.

The variation of significant outcomes across businesses is also worth mentioning. UTC Aerospace Systems had the most significant improvements across all worksites, which might be partly due to the fairly advanced wellness culture throughout the business. First, the UTC Aerospace Systems has had an active wellness committee longer than any of the other participating businesses. The worksite also implements corporate wellness offerings and has designated staff that is responsible for the safety and wellness of the employees (C. Blanke, personal communication, November 20, 2017).

Limitations

One of the limitations of the program was that the study population was determined by employees who wanted to participate in the program. This convenience sample could have an

effect on the results because the participants who did not expose themselves to the intervention were not accurately measured. Further, employees who have the least healthy behaviors are the least likely to participate in worksite wellness programs (Thompson, Smith & Bybee, 2005).

Another limitation of this project was the representativeness of the study population. We were not able to ensure that our study population was an accurate representation of the demographics of the overall businesses. Furthermore, we were not able to reach all of the shift-workers, specifically, the evening and overnight crew.

Although we were confident about the number of pre-assessments completed, the number of participants that actually tracked and were involved in the program was lower than expected. Additionally, we were not able to determine which element of the entire intervention had more of an influence on the employees' behavior changes and improved health outcomes.

Recommendations

Many lessons were learned while implementing Path to Wellness...Eat Fit Thrive. If the intervention was to be repeated, we recommend allowing for more time to recruit businesses and participants. Furthermore, participants stated that the summer was not a suitable time for them to make lifestyle changes; thus, repeating this program in the fall or winter months might be beneficial.

Since there were very few differences in the results between individuals who used the SuperTracker and those who did not, this may provide the owners of the website with information needed to help make updates to the tool; therefore, increasing participant tracking and potentially improving users' results. An additional recommendation for the SuperTracker is

the creation of an easy-to-use smartphone application. The website was hard to operate on participants' smartphone devices.

Additionally, the CHEW was a difficult tool to navigate. The format of the CHEW was reworked after visiting the second business. Page numbers were added, spaces to write were included, and information that had similar content was grouped. For instance, all inside observations were listed first in the tool followed by outdoor observations (Appendix C). Another recommendation for the CHEW would be to split up the question about the number of vending machine slots with low-sugar and low-fat snacks. Very few slots had items that were both low in fat and low in sugar. This double-barreled question caused some confusion, especially when trying to keep the measurements reliable. Finally, not all items in the CHEW were applicable for small-town, rural businesses. For example, asking the employers if their worksite has a billiard room or a sauna was slightly unreasonable. Creating a separate CHEW tool for rural businesses would be advantageous.

Incorporating an environmental assessment component is only the first step in furthering the worksites' physical and informational environments to promote healthier lifestyles, and in turn, improving the health of the employees. The next step is for businesses to select and apply at least one of the tailored recommendations for their worksite (Appendix D). Overall, a follow-up assessment of the businesses' environments and individuals' health should be completed to determine the long-term effects of the intervention. Additional research is needed to assess the environmental changes that the businesses made after providing tailored recommendations. Measuring whether these environmental changes aid employees in pursuing healthier lifestyles should also be evaluated. The individual and overall business reports can also be used by the

Four Corners Health Department to easily track relapses in the overall businesses' health, and strategically plan other programs to prevent employees from returning to unhealthy behaviors.

Conclusions

In this intervention, participants were provided with weekly emails containing motivational quotes, helpful tips, and healthy recipes, a free, web-based tracking tool called the SuperTracker, and an online group challenge to help increase motivation. Participants significantly improved multiple health measures, including weight, BMI, eating habits, waist circumference, systolic blood pressure, and minutes of physical activity per day, which implies that the intervention was successful. Additionally, an environmental auditing tool called the CHEW was utilized to assess the physical and informational worksite environment and provide businesses with tailored recommendations to help provide their employees with a healthy work environment.

Multilevel interventions are needed with the intent to address many factors at each level of the SEM, which can increase the success of the intervention. Further, worksites are ideal locations to conduct these types of multilevel interventions because they can provide social and environmental support to encourage behavior change.

Public health professionals need to think upstream and recognize the impact that multilevel interventions could have on the health and well-being of their communities. Finding the most effective and efficient ways to improve healthy behaviors and reduce the risk of obesity-related health problems is crucial, as obesity has become a national epidemic. Multilevel interventions targeting health promotion might be an approach that significantly reduces this chronic disease within the Four Corners community, Nebraska, and the nation.

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FCHD**Pre-Assessment:**

1. Name:
2. Company:
3. Date:
4. Address:
5. City, State, Zip:
6. Birthdate: Gender: ☐ Male ☐ Female
7. Race: ☐ White ☐ African Am ☐ Pacific Islander
☐ Am Indian or Alaska Native ☐ Asian
☐ Other:
- Are you of Latino or Hispanic origin? ☐ YES ☐ NO
8. Phone: ☐ Home ☐ Cell ☐ Work
9. Email address:
10. Do you have a primary physician? ☐ YES ☐ NO
11. Preferred county for services?
12. Do you have health insurance? ☐ YES ☐ NO
13. Are you a military veteran? ☐ YES ☐ NO

Body Mass Index (BMI): Wt Ht
 BMI

Blood Pressure: Systolic Diastolic

Blood Pressure Med: ☐ YES ☐ NO

Waist circumference:

Physical activity minutes per day:

days per week:

Discussion Topics:

- ☐ SuperTracker Videos
☐ Consent Form
☐ Questions?

Notes:

Path to Wellness...

Thrive

EMPLOYEE

For any program, it's important to find out where you're starting and then, at the end, learn how it all went. That is what we want to do with this program too.

Physical activity benefits the body in so many ways. We will measure some basics so you can see how you're improving.

Pre-Assessment

Name

Date

Wt Ht =BMI

BMI Healthy Range 18-24

Blood Pressure Systolic

Diastolic

Healthy Range 120/80 Goal

Blood Pressure Med ☐ YES ☐ NO

Waist circumference

Healthy Range <35 W <40 M Goal

Physical activity minutes per day

days per week

Healthy Range 150 min/wk Goal

**All data collected will be kept confidential, and any reporting will be done in group form only.
 No individual results will be shared.**

Notes:



**Four Corners
 Health Department**





Path to Wellness...

Thrive

FCHD**Pre-Assessment:****Starting the Conversation: Diet****Starting the Conversation: Die**

Over the past few months:

- | | | | |
|--|---|--|---|
| 1. How many times a week did you eat fast food meals or snacks? | Less than
1 time
<input type="checkbox"/> | 1-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 2. How many servings of fruit did you eat each day? | 5 or
more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 3. How many servings of vegetables did you eat each day? | 5 or
more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 4. How many regular sodas or glasses of sweet tea did you drink each day? | Less than
1
<input type="checkbox"/> | 1-2
<input type="checkbox"/> | 3 or more
<input type="checkbox"/> |
| 5. How many times a week did you eat beans (like pinto or black beans), chicken, or fish? | 3 or
more
times
<input type="checkbox"/> | 1-2
times
<input type="checkbox"/> | Less than
1 time
<input type="checkbox"/> |
| 6. How many times a week did you eat regular snack chips or crackers (not low-fat)? | 1 time
or less
<input type="checkbox"/> | 2-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 7. How many times a week did you eat desserts and other sweets (not the low-fat kind)? | 1 time
or less
<input type="checkbox"/> | 2-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 8. How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn? | Very
little
<input type="checkbox"/> | Some
<input type="checkbox"/> | A lot
<input type="checkbox"/> |

SUMMARY SCORE (sum of all items): _____

Notes: _____

Over the past few months:

- | | | | |
|--|---|--|---|
| 1. How many times a week did you eat fast food meals or snacks? | Less than
1 time
<input type="checkbox"/> | 1-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 2. How many servings of fruit did you eat each day? | 5 or
more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 3. How many servings of vegetables did you eat each day? | 5 or
more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 4. How many regular sodas or glasses of sweet tea did you drink each day? | Less than
1
<input type="checkbox"/> | 1-2
<input type="checkbox"/> | 3 or more
<input type="checkbox"/> |
| 5. How many times a week did you eat beans (like pinto or black beans), chicken, or fish? | 3 or
more
times
<input type="checkbox"/> | 1-2
times
<input type="checkbox"/> | Less than
1 time
<input type="checkbox"/> |
| 6. How many times a week did you eat regular snack chips or crackers (not low-fat)? | 1 time
or less
<input type="checkbox"/> | 2-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 7. How many times a week did you eat desserts and other sweets (not the low-fat kind)? | 1 time
or less
<input type="checkbox"/> | 2-3
times
<input type="checkbox"/> | 4 or more
times
<input type="checkbox"/> |
| 8. How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn? | Very
little
<input type="checkbox"/> | Some
<input type="checkbox"/> | A lot
<input type="checkbox"/> |

SUMMARY SCORE (sum of all items): _____

Notes: _____

FCHD**Post-Assessment:**1. Name: 2. Company: 3. Date: **Note: Only complete #4-10 if answers have changed:**4. Address: 5. City, State, Zip: 6. Phone: ☐ Home ☐ Cell ☐ Work7. Email address: 8. Do you have a primary physician? ☐ YES ☐ NO9. Preferred county for services? 10. Do you have health insurance? ☐ YES ☐ NOBody Mass Index (BMI): Wt Ht BMI Blood Pressure: Systolic Diastolic Blood Pressure Med: ☐ YES ☐ NOWaist circumference: Physical activity minutes per day: # days per week: **Discussion Topics:**

- ☐ Feedback Sheet
- ☐ Goals
- ☐ SuperTracker Username: _____

Diabetes Status Change? YES NO**Notes:** _____

**EMPLOYEE**

Having a pre and post assessment help you to know how the day to day choices impact your health. Think about which habits to keep and which ones to change. **Know your numbers.**

Thank you for being part of the Eat, Fit, Thrive Program. This is not the end of your personal program. Please set new goals and keep improving.

Post-AssessmentName Date Wt Ht =BMI BMI Healthy Range 18-24 Blood Pressure Systolic Diastolic Healthy Range 120/80 Goal Blood Pressure Med ☐ YES ☐ NOWaist circumference Healthy Range <35 W <40 M Goal Physical activity minutes per day # days per week Healthy Range 150 min/wk Goal

All data collected will be kept confidential, and any reporting will be done in group form only.

No individual results will be shared.

Notes: _____



Path to Wellness...

Thrive

Starting the Conversation: Diet

Over the past few months:

- | | | | |
|--|--|---------------------------------------|--|
| 1. How many times a week did you eat fast food meals or snacks? | Less than 1 time
<input type="checkbox"/> | 1-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 2. How many servings of fruit did you eat each day? | 5 or more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 3. How many servings of vegetables did you eat each day? | 5 or more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 4. How many regular sodas or glasses of sweet tea did you drink each day? | Less than 1
<input type="checkbox"/> | 1-2
<input type="checkbox"/> | 3 or more
<input type="checkbox"/> |
| 5. How many times a week did you eat beans (like pinto or black beans), chicken, or fish? | 3 or more times
<input type="checkbox"/> | 1-2 times
<input type="checkbox"/> | Less than 1 time
<input type="checkbox"/> |
| 6. How many times a week did you eat regular snack chips or crackers (not low-fat)? | 1 time or less
<input type="checkbox"/> | 2-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 7. How many times a week did you eat desserts and other sweets (not the low-fat kind)? | 1 time or less
<input type="checkbox"/> | 2-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 8. How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn? | Very little
<input type="checkbox"/> | Some
<input type="checkbox"/> | A lot
<input type="checkbox"/> |

SUMMARY SCORE (sum of all items): _____

Notes: _____

FCHD

Post-Assessment:

Starting the Conversation: Diet

Over the past few months:

- | | | | |
|--|--|---------------------------------------|--|
| 1. How many times a week did you eat fast food meals or snacks? | Less than 1 time
<input type="checkbox"/> | 1-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 2. How many servings of fruit did you eat each day? | 5 or more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 3. How many servings of vegetables did you eat each day? | 5 or more
<input type="checkbox"/> | 3-4
<input type="checkbox"/> | 2 or less
<input type="checkbox"/> |
| 4. How many regular sodas or glasses of sweet tea did you drink each day? | Less than 1
<input type="checkbox"/> | 1-2
<input type="checkbox"/> | 3 or more
<input type="checkbox"/> |
| 5. How many times a week did you eat beans (like pinto or black beans), chicken, or fish? | 3 or more times
<input type="checkbox"/> | 1-2 times
<input type="checkbox"/> | Less than 1 time
<input type="checkbox"/> |
| 6. How many times a week did you eat regular snack chips or crackers (not low-fat)? | 1 time or less
<input type="checkbox"/> | 2-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 7. How many times a week did you eat desserts and other sweets (not the low-fat kind)? | 1 time or less
<input type="checkbox"/> | 2-3 times
<input type="checkbox"/> | 4 or more times
<input type="checkbox"/> |
| 8. How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn? | Very little
<input type="checkbox"/> | Some
<input type="checkbox"/> | A lot
<input type="checkbox"/> |

SUMMARY SCORE (sum of all items): _____

Notes: _____

Appendix C

General Building Characteristics:

Worksite: _____

Building/Address: _____

Date: _____ Time: _____ Observer: _____

A. Building Assessment:

Number of buildings at the worksite No. = _____

Number of floors No. = _____

Worksite is on how many floors? No. = _____

Freestanding or connected to other buildings? 1. Freestanding 2. Connected

Is worksite all or part of building? 1. All 2. Part

B. Changing Rooms and Showers:

Number of male changing rooms

Tally: _____ Total No. = _____

Number of female changing rooms

Tally: _____ Total No. = _____

Number of unisex changing rooms

Tally: _____ Total No. = _____

Number of male showers

Tally: _____ Total No. = _____

Number of female showers

Tally: _____ Total No. = _____

Number of unisex showers

Tally: _____ Total No. = _____

C. Access to Exercise Equipment:

	Workout Room 1	Workout Room 2
In worksite	<input type="checkbox"/>	<input type="checkbox"/>
In grounds	<input type="checkbox"/>	<input type="checkbox"/>
Area for aerobics/ dance/other activities	1. No area 2. Part time 3. Permanent	1. No area 2. Part time 3. Permanent
Size of workout area:	____ft X ____ft	____ft X ____ft
Treadmills	No. = _____	No. = _____
Ellipticals	No. = _____	No. = _____
Bikes	No. = _____	No. = _____
Rowing Machines	No. = _____	No. = _____
Stepper Machines	No. = _____	No. = _____
Free Weights	No. = _____	No. = _____
Resistance Equipment	No. = _____	No. = _____
Other Machines	No. = _____	No. = _____
TV in workout area	<input type="checkbox"/>	<input type="checkbox"/>
Music in workout area	<input type="checkbox"/>	<input type="checkbox"/>

D. Sedentary Entertainment Equipment:

(circle if present)

	In worksite or on grounds?	
Table Tennis Tables	1. Worksite	2. Grounds
Billiard Tables	1. Worksite	2. Grounds
Sauna	1. Worksite	2. Grounds
Spa	1. Worksite	2. Grounds
TV Lounge	1. Worksite	2. Grounds

E. Food Choice Environment:

Canteen (Cafeteria)

Canteen 1

In worksite or on grounds?

1. Worksite

2. Grounds

(For the following tick if present)

Fresh fruit ☐

Green salads ☐

Lowfat milk or yogurt ☐

Number of other low/reduced fat items on menu or on notices No. = _____

Number of NHF ticks displayed or other labeling of low fat items No. = _____

Number of items with easily visible nutrition information signs
(fat grams, cal) No. = _____

Number of signs/prompts to choose low fat items No. = _____

Number of signs/prompts to choose fruits and vegetables No. = _____

Canteen 2

In worksite or on grounds?

1. Worksite

2. Grounds

(For the following tick if present)

Fresh fruit ☐

Green salads ☐

Low fat milk or yogurt ☐

Number of other low/reduced fat items on menu or notices No. = _____

Number of NHF ticks displayed or other labeling of low fat items No. = _____

Number of items with easily visible nutrition information signs
(fat grams, cal) No. = _____

Number of signs/prompts to choose low fat items No. = _____

Number of signs/prompts to choose fruits and vegetables No. = _____

F. Lunch Room/Break Room Assessment:

Lunch/Break Room 1

In worksite or on grounds?

1. Worksite

2. Grounds

(For the following tick if present)

Microwave ☐

Other oven or toaster ☐

Fridge ☐

Seating in or near food preparation area ☐

Lunch/Break Room 2

In worksite or on grounds?

1. Worksite

2. Grounds

(For the following tick if present)

Microwave ☐

Other oven or toaster ☐

Fridge ☐

Seating in or near food preparation area ☐

G. Water Coolers:

Number of water coolers: _____

Number of water fountains: _____

H. Vending Machines:

[illegible]

I. Elevator Checklist:

	Entrance	Entrance	Entrance
(tick if yes or present)	1	2	3
Elevator (or sign) visible from major employee entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sign encouraging use of stairs at elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of elevators	Total No. = _____		

J. Stair Use Facilitation:

[illegible]

K. Information Environment:

Number of (commonly accessed) bulletin boards at the worksite

Tally: _____ Total No. = _____

1. Physical Activity:

Number of signs or posters generally encouraging physical activity (other than related to stairs)

Tally: _____ Total No. = _____

Number of notices about *onsite* exercise classes

Tally: _____ Total No. = _____

Number of notices about offsite physical activity/sports sponsored by the specific worksite

Tally: _____ Total No. = _____

Number of notices about offsite physical activity/sports sponsored by other organizations (this can include the parent company)

Tally: _____ Total No. = _____

Number of other notices about physical activity/sports

Tally: _____ Total No. = _____

2. Nutrition:

Number of signs/posters encouraging *dietary fat reduction* or promoting programs

Tally: _____ Total No. = _____

Number of signs/posters encouraging *more fruits and vegetables* or promoting programs

Tally: _____ Total No. = _____

Number of notices on bulletin board about *dietary information other than the above* (GENERAL)

Tally: _____ Total No. = _____

Number of notices on bulletin board about *weight loss or healthy weight maintenance*

Tally: _____ Total No. = _____

3. Smoking:

Number of entrances to building

Tally: _____ Total No. = _____

Number of signs about smoking restrictions on or around entrance doors

Tally: _____ Total No. = _____

Number of notices on bulletin board about *smoking cessation programs* or *smoking policies*

Tally: _____ Total No. = _____

Number of signs/posters about smoking (ex.in bathrooms)

Tally: _____ Total No. = _____

4. Alcohol:

Number of signs/posters about responsible drinking (ex. in bathrooms)

Tally: _____ Total No. = _____

Number of notices on bulletin boards about responsible drinking or alcohol policies

Tally: _____ Total No. = _____

5. Health Promotion:

Number of bulletin boards dedicated to health promotion

Tally: _____ Total No. = _____

Number of postings related to combination of diet, physical activity, smoking, or alcohol

Tally: _____ Total No. = _____

(OUTSIDE)

L. Smoking Environment

Number of cigarette vending machines in the building

Tally: _____ Total No. = _____

Number of cigarette disposal units on the grounds (at entrances ect.)

Tally: _____ Total No. = _____

M. Alcohol Environment

Is there an observed area where alcohol is served? (tick if yes) ☐

N. Parking Assessment

Number of signs in parking lot encouraging drivers to park farther No. = _____

O. Bike Friendliness:

Number of bike rack spaces on grounds (count each space to park bike)

Tally: _____ Total No. = _____

Number of bikes parked outside

Tally: _____ Total No. = _____

Number of bicycles seen stored inside building:

Tally: _____ Total No. = _____

Number of bike lockers

Tally: _____ Total No. = _____

Other lock up facilities for bikes (tick if yes) ☐

P. Grounds Assessment

Are grounds exclusive for target worksite or shared? 1. Exclusive 2. Shared

(For the following tick if present)

Volleyball court ☐

Basketball goal ☐

Walking path on or adjacent to grounds ☐

Open space/grassy area large enough for physical activity ☐

Size of open space/grassy areas _____ft X _____ft

Other outdoor fitness or sport facilities (tick if yes) ☐

Please specify: _____

Things not included from original:

- asking about signs for low fat and fruits and veggies under Canteen since this was already in the information environment
- neighborhood assessment, this is beyond the scope of this study
- the interview

Breeza's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

6 total post-assessments were completed. Of those that joined the program, **6** participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 0 participant improved in all 6 areas. (0%)
- 1 participant improved in 5 areas. (17%)
- 1 participant improved in 4 areas. (17%)
- 3 participants improved in 3 areas. (50%)
- 1 participant improved in 2 areas. (17%)
- 0 participant improved in 1 area. (0%)

- 4 decreased their weight. (67%)
- 4 decreased their BMI. (67%)
- 4 increased their physical activity minutes. (67%)
- 3 improved their eating habits (50%)
- 3 decreased their waist circumference. (50%)
- 2 decreased their blood pressure. (33%)

These are great results!



Other Good Outcomes

Comments from Breeza Participants Arranged into Themes

Tell us how this program has helped you.

- Theme 1: Awareness
 - Comments:
 - Mental awareness of eating habits
 - I have watched more of what I eat/ less snacks
 - Just made me more aware of my eating habits
 - Helps keep me aware
 - Made me focus on fruits & vegetables
- Theme 2: Motivation
 - Comments:
 - Enjoyed emails weekly to keep me thinking about program

What would have made this program better for you?

- Theme 1: Timing
 - Comments:
 - Different time of year when I wasn't so busy
- Theme 2: Dedication
 - Comments:
 - My dedication to the program
- Theme 3: Other
 - Comments:
 - Mobile App

What would help you keep eating healthier and being physically active?

- Theme 1: Motivation
 - Comments:
 - Reminders to keep me eating healthy
 - Grand kids
- Theme 2: Other
 - Comments:
 - Continue to monitor my eating
 - Less stress at work

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Stress management/ Physical Activity
 - Healthy Eating
 - Losing or maintaining weight/ Flexibility



Breeza's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in yielding a rich information environment by providing your employees with posters encouraging physical activity and healthy eating, and also increasing awareness of depression. The bulletin board that is dedicated to health promotion is excellent in helping employees stay motivated and informed while improving their lifestyles.

Below is a list of suggestions to help advance your employees' healthy work environment!

- **Offer a water cooler**
- **Add informational signs/posters about smoking**
- **Offer a place for employees to park bikes to encourage an efficient and healthy way to get to work**
- **Add a sign in the parking lot encouraging drivers to park farther away and increase their steps**



David Place's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

6 total post-assessments were completed. Of those that joined the program, 4 participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 2 participant improved in all 6 areas. (50%)
- 1 participant improved in 5 areas. (25%)
- 0 participant improved in 4 areas. (0%)
- 1 participant improved in 3 areas. (25%)
- 0 participant improved in 2 areas. (0%)
- 0 participants improved in 1 area. (0%)

- 4 decreased their waist circumference. (100%)
- 4 improved their eating habits (100%)
- 3 decreased their weight. (75%)
- 3 decreased their blood pressure. (75%)
- 3 decreased their BMI. (75%)
- 3 increased their physical activity minutes. (75%)

These are great results!



Other Good Outcomes

Comments from David Place Participants Arranged into Themes

Tell me how this program has helped you.

- Theme 1: Awareness
 - Comments:
 - It made me realize my poor eating habits and lack of exercise
 - It made me think about what I was going to eat before I ate it
 - Be aware of what you eat and how you eat
- Theme 2: Other
 - Comments:
 - A lot of helpful information
 - Easy to follow

What would have made this program better for you?

- Theme 1: Technical Details
 - Comments:
 - Log in all the steps in the beginning
 - An app for my phone with bar scan
 - An app that was faster to use

What would help you keep eating healthier and being physically active?

- Theme 1: Accountability/Support
 - Comments:
 - Friends that are also doing this
- Theme 2: Awareness
 - Comments:
 - To be mindful of intake
- Theme 3: Other
 - Comments:
 - Fresh veggies year round

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Stress management
 - Physical Activity



David Place's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing employees with a well-equipped area for their lunch break, which allows them to bring a variety of healthy food options. Additionally, you do an outstanding job promoting health through the use of your bulletin boards, signs, and posters. We would like to highlight your excellence in having signs about smoking restrictions on all entrance doors to your facility and your walking path around the building. All of these are key in helping your employees improve their lifestyles.

Below is a list of suggestions to help advance your employees' healthy work environment!

- Offer snacks low in fat and sugar in the 4 empty slots in the snack vending machines
- Add signs that promote eating more fruits and vegetables
- Offer a place for employees to park bikes, like a bike rack, to encourage an efficient and healthy way to get to work
- Add a sign in the parking lot encouraging drivers to park farther away and increase their daily step count
- Promote your open space and grassy area outside to employees for an additional place to be physically active and relieve stress



Four Corners Health Department's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

6 total post-assessments were completed. Of those that joined the program, 5 participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 0 participant improved in all 6 areas. (0%)
- 1 participant improved in 5 areas. (17%)
- 2 participants improved in 4 areas. (33%)
- 0 participant improved in 3 areas. (0%)
- 1 participant improved in 2 areas. (17%)
- 1 participant improved in 1 area. (17%)

- 4 improved their eating habits (67%)
- 3 decreased their weight. (50%)
- 3 decreased their BMI. (50%)
- 3 decreased their waist circumference. (50%)
- 2 decreased their blood pressure. (33%)
- 1 increased their physical activity minutes. (17%)

These are great results!



Other Good Outcomes

Comments from Four Corners Participants Arranged into Themes

Tell me how this program has helped you.

- Theme 1: Support
 - Comments:
 - It helped give me a “home base” to stay on track during a busy time
 - Employer support is great
- Theme 2: Timing
 - Comments:
 - It's good to know that it is available to me to use whenever I have extra time
 - Unfortunately, I didn't use the program as I should have – I did find the hints, materials & emails useful and have saved them to use then I'm ready to put my heart into the program
- Theme 3: Increase Healthy Eating
 - Comments:
 - Low salt/sodium intake and less eating out every week
 - Be more focused on my servings of fruits and vegetables
- Theme 4: Motivation
 - Comments:
 - Be more motivated to be at a healthier weight
- Theme 5: Other
 - Comments:
 - Appreciated all of the emails and information sent
 - Structure is great
 - Trying new approaches is great

What would have made this program better for you?

- Theme 1: Improve Tracking Technology
 - Comments:
 - Supertracker having some advanced features
 - I thought it was hard to manage super tracker and quick tracker simultaneously. I discontinued the super tracker when the quick tracker challenges began.
 - If super tracker would have uploaded everything from Fit Bit
 - Simple – less confusing
 - It was hard to keep up with the tracking portion of the program
- Theme 2: Other
 - Comments:
 - Routine use of fit bit
 - Motivation and time



What would help you keep eating healthier and being physically active?

- Theme 1: Support
 - Comments:
 - The tools & resources from this program will continue to be helpful
 - Wellness campaigns
 - Accountability for ongoing programs like these
- Theme 2: Other
 - Comments:
 - Keeping a healthy balance
 - It's a matter of time prioritizing

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Stress management
 - Healthy Eating/Losing or maintaining weight
 - Physical Activity/Sleeping

Four Corners Health Department's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing a rich information environment by providing your employees with posters that encourage physical activity, eating more fruits and vegetables, responsible drinking, proper hand washing, and ways to reduce stress. The spaces that you have designated for relaxation, restoration, and physical activity are admirable and will help support your employees in their journey to a healthier lifestyle. We also commend you on your herb garden and indoor walking path!

Below is a list of suggestions to help advance your employees' healthy work environment!

- **Add informative signs/posters about smoking policies**
- **Offer a place for employees to park bikes to encourage an efficient and healthy way to get to work**
- **Add signs about healthy weight loss or healthy weight maintenance**
- **Promote your workout room and indoor walking path by adding encouraging signs and informational posters, such as the number of laps it takes to equal a mile.**



Frontier Cooperative's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

9 total post-assessments were completed. Of those that joined the program, 8 participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 1 participant improved in all 6 areas. (11%)
- 0 participant improved in 5 areas. (0%)
- 1 participant improved in 4 areas. (11%)
- 3 participants improved in 3 areas. (33%)
- 2 participants improved in 2 areas. (22%)
- 1 participant improved in 1 area. (11%)

- 5 increased their physical activity minutes. (56%)
- 5 decreased their waist circumference. (56%)
- 5 improved their eating habits. (56%)
- 3 decreased their weight. (33%)
- 3 decreased their blood pressure. (33%)
- 3 decreased their BMI. (33%)

These are great results!



Other Good Outcomes

Comments from Frontier Cooperative Participants Arranged into Themes

Tell me how this program has helped you.

- Theme 1: Mindfulness
 - Comments:
 - Be more aware of how many fruits and vegetables I eat
 - I do pay attention to what I eat and monitor my intake more than I did
 - Watching what I eat and remind me to increase my physical activity
 - Good program – helped me watch what I eat
 - Made me focus on my daily calorie intake
 - Monitoring and thinking about what I'm eating helps me
 - Made me think about the various food choices that I was making along with making it a priority to exercise
- Theme 2: Other
 - Comments:
 - Trying to be more active
 - Count calories
 - I ate more fruits and vegetables because of the program – eating a salad for lunch and fruit for breakfast

What would have made this program better for you?

- Theme 1: Timing
 - Comments:
 - The time period that we tracked these things. Summer months can be a tough time.
- Theme 2: Technical Details
 - Comments:
 - I would like to food tracker to be app based
 - Easier computer logging
 - Do Quick tracker right away



What would help you keep eating healthier and being physically active?

- Theme 1: Persistence
 - Comments:
 - Just need to keep thinking about it and not take periods off
 - My internal drive to stay fit and healthy. I want to feel and look good.
 - Just need to be more disciplined
- Theme 2: Support
 - Comments:
 - Reminders
 - Group activities
- Theme 3: Other
 - Comments:
 - Record keeping
 - Time

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Healthy Eating/Losing or maintaining weight/Stress management
 - Physical Activity



Frontier Cooperative's
Checklist of Health Promotion Environments
at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing employees with a well-equipped area for their lunch break, which allows them to bring many different healthy food options. We would like to highlight your excellence in having signs about smoking policies throughout your building. Additionally, offering a water cooler and encouraging employees to eat more fruits and vegetables are excellent ways in which you provide your employees with a healthy work environment. All of these are key in helping your employees improve their lifestyles.

Below is a list of suggestions to help advance your employees' healthy work environment!

- **Add signs that encourage dietary fat reduction and physical activity, and posters that inform employees on healthy weight loss or healthy weight maintenance**
- **In your vending machines, replace high sugar fruit juice drinks with 100% fruit juice**
- **Offer a place for employees to park bikes, like a bike rack, to encourage an efficient and healthy way to get to work**



Jones Bank's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

12 total post-assessments were completed. Of those that joined the program, **12** participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 1 participant improved in all 6 areas. (8%)
 - 3 participants improved in 5 areas. (25%)
 - 2 participants improved in 4 areas. (17%)
 - 5 participants improved in 3 areas. (42%)
 - 0 participant improved in 2 areas. (0%)
 - 1 participant improved in 1 area. (8%)
-
- 10 improved their eating habits (83%)
 - 9 decreased their weight. (75%)
 - 9 decreased their blood pressure. (75%)
 - 8 decreased their BMI. (67%)
 - 5 decreased their waist circumference. (42%)
 - 4 increased their physical activity minutes. (33%)

These are great results!



Other Good Outcomes

Comments from Jones Bank Participants Arranged into Themes

Tell me how this program has helped you.

- Theme 1: Awareness
 - Comments:
 - Keeps me aware of healthy lifestyle and food choices
 - Keeps me thinking about healthy exercise and eating habits
 - Made me aware of what I was “actually” eating!
 - More thoughtful of foods eating and ensuring I’m getting daily activity/ exercise in my schedule
 - Made me more mindful of my eating habits – I was able to meet all of the diet challenges
 - Made me more aware of what I am eating
- Theme 2: Motivation
 - Comments:
 - Motivated me to start making changes for better health
 - Materials help me feel motivated to make changes now
- Theme 3: Healthier Eating
 - Comments:
 - I’m eating more fruits and vegetables than I had in the past
 - Helped me establish some better eating habits
- Theme 4: Other
 - Comments:
 - Made me more accountable
 - Liked the materials

What would have made this program better for you?

- Theme 1: Technical Detail
 - Comments:
 - Quick tracker was the best – easy and fast
 - More beneficial to do full entry but very time consuming – maybe have a little simpler tracking to see added details
 - SuperTracker easier to use – foods not always easy to find in listing
 - If SuperTracker was more user friendly
 - Better tracker
- Theme 3: Other
 - Comments:
 - If it started in fall/winter months
 - More recipes
 - To have someone on-site once a week to visit with



What would help you keep eating healthier and being physically active?

- Theme 1: Ongoing Support
 - Comments:
 - Keep posting healthy recipes & articles on health
 - Additional group challenges
 - Having friends/family keep me accountable
 - Tracking sheet for activities that I have to share with someone
 - A challenge of the day
- Theme 2: Other
 - Comments:
 - I like the emails with nutrition and exercise info
 - Putting my mind to it
 - Tracking it, writing it down

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Healthy Eating
 - Physical Activity
 - Losing or maintaining weight/Stress management
 - Other:
 - All would be good and newsletters or emails are nice, easy reminders
 - Buddy system with one of your staff members



Jones Bank's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing employees with a well-equipped area for their lunch break, which allows them to bring a variety of healthy food options. Additionally, offering filtered water in the break room is a great drink option for employees. We would also like to highlight your beautiful walking path next to your building, and your excellence in providing employees with a space to park bicycles, which promotes an efficient and healthy way to get to work. All of these are key in helping your employees improve their lifestyles.

Below is a list of suggestions to help advance your employees' health work environment!

- **Add a bulletin board in the break room with signs that promotes physical activity, eating more fruits and vegetables, and information on healthy weight loss or healthy weight maintenance**
- **Promote your open space and grassy area outside to employees for an additional place to be physically active and relieve stress**
- **Add a poster by the elevator that encourages the use of the stairs instead**
- **Place a sign in the parking lot advocating drivers to park farther away and increase their daily step count**



Ridgewood's success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

3 total post-assessments were completed. Of those that joined the program, 3 participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 1 participant improved in all 6 areas. (33%)
- 0 participant improved in 5 areas. (0%)
- 2 participants improved in 4 areas. (67%)
- 0 participant improved in 3 areas. (0%)
- 0 participant improved in 2 areas. (0%)
- 0 participant improved in 1 area. (0%)

- 3 decreased their waist circumference. (100%)
- 3 decreased their weight. (100%)
- 3 decreased their BMI. (100%)
- 2 improved their eating habits (67%)
- 2 decreased their blood pressure. (67%)
- 1 increased their physical activity minutes. (33%)

These are great results!



Other Good Outcomes

Comments from Ridgewood Participants

Tell me how this program has helped you.

- Comments:
 - Eating better with more exercise
 - The encouragement
 - It helped me manage my calorie intake

What would have made this program better for you?

- Comments:
 - None

What would help you keep eating healthier and being physically active?

- Comments:
 - Maintain my motivation and seeing results
 - My self-drive to keep up with extra physical activity

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Healthy Eating/Physical activity
 - Stress management/Losing or maintaining weight



Ridgewood's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing employees with a well-equipped area for their lunch break, which allows them to bring a variety of healthy food options. We would also like to highlight your walking path next to the building, which is an excellent resource for employees as they strive to live healthier lifestyles. All of these are key in helping your employees improve their lifestyles.

Below is a list of suggestions to help advance your employees' healthy work environment!

- **Offer snacks low in fat and sugar in the 4 empty slots in the vending machines**
- **Add signs that promote eating more fruits and vegetables and dietary fat reduction, and also provide information about healthy weight loss or healthy weight maintenance**
- **Place posters about your smoking policies on all entrance doors**
- **Add a sign in the parking lot encouraging drivers to park farther away and increase their daily step count**
- **Promote your open space and grassy area outside to employees for an additional place to be physically active and relieve stress**



UTC Aerospace Systems' success in supporting the health of their employees.



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating increases heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

12 total post-assessments were completed. Of those that joined the program, **12** participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 2 participants improved in all 6 areas. (17%)
 - 2 participants improved in 5 areas. (17%)
 - 5 participants improved in 4 areas. (42%)
 - 1 participant improved in 3 areas. (8%)
 - 2 participants improved in 2 areas. (17%)
 - 0 participant improved in 1 area. (0%)
-
- 11 decreased their weight. (92%)
 - 10 decreased their BMI. (83%)
 - 9 decreased their waist circumference. (75%)
 - 8 improved their eating habits (67%)
 - 7 increased their physical activity minutes. (58%)
 - 4 decreased their blood pressure. (33%)

These are great results!



Other Good Outcomes

Comments from UTC Aerospace Systems' Participants Arranged into Themes

Tell me how this program has helped you.

- Theme 1: Awareness
 - Comments:
 - Be more aware of what I eat and be faithful at exercising
 - Reminded me to stay healthier and fit
 - Awareness
 - Conscious of health and fitness
- Theme 2: Healthier Lifestyle
 - Comments:
 - It helped me replace my “healthy” junk food with fruits or vegetables instead of veggie chips or reduced fat crackers/rice cakes
 - I honestly didn’t put time into the program like I wanted to initially. I had too much going on to read the emails and use the tracker. I did work at eating better snacks (veggies instead of chips/crackers). I also try to stretch and stand at my desk more
 - Focused on getting more exercise
 - Pushed me to research more about dieting and nutrition, found a lifestyle that fit me
 - It did give me incentive to work on healthy choices
- Theme 3: Other
 - Comments:
 - I enjoyed reading the articles – good suggestions and recipes

What would have made this program better for you?

- Theme 1: Time
 - Comments:
 - My work load business of personal activities distracted me during this period
 - More time dedicated to it
 - If I had made the intention to dedicate time to it
 - If I would have remembered to use the SuperTracker earlier
 - If I would’ve logged on sooner
- Theme 2: Other
 - Comments:
 - Understanding system
 - Nothing – it was great
 - I don’t like tracking food, exercise in an automatic app



What would help you keep eating healthier and being physically active?

- Theme 1: Time
 - Comments:
 - Just making/taking the time to get moving
 - I think I do a pretty good job of this already, I have less time to workout
- Theme 2: Other
 - Comments:
 - Being aware of intake; define activities
 - Meal planning and just planning ahead
 - Seeing progress
 - Shelia's vegetable garden year round

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Stress management
 - Losing or maintaining weight
 - Physical Activity
 - Healthy Eating



UTC Aerospace System's Checklist of Health Promotion Environments at Worksites (CHEW) Report

Walking through your building, we noticed many items that promote a healthy lifestyle! You excel in providing employees with various low fat and low sugar snack options as well as offering 100% fruit juice in your vending machines and equipping your building with plenty of places for employees to access drinking water. We would like to highlight your wellness wall, which encourages employees with the rich information environment. The walking path is also an excellent resource for employees as they strive to live healthier lifestyles. All of these are key in helping your employees improve their lifestyles.

Below is a list of suggestions to help advance your employees' health work environment!

- **Add signs by the elevators that encourage the use of the stairs instead**
- **Promote your open space and grassy area outside to employees for an additional place to be physically active and relieve stress**
- **Add signs in the cafeteria that encourage dietary fat reduction and eating more fruits and vegetables, and posters that inform employees on healthy weight loss or healthy weight maintenance**
- **Place a sign in the parking lot advocating drivers to park farther away and increase their daily step count**



The program showed great success in helping employees get healthier!



Healthy Employees =
Healthy Businesses =
Healthy Families =
Healthy Communities

The goal of the Path to Wellness... Eat Fit Thrive program was to help more individuals improve their eating habits through the use of the SuperTracker. Healthier eating improves heart health, decreases the risk of chronic diseases, like diabetes and cancer, and much more!

52 total post-assessments were completed. Of those that joined the program, **50** participants had an improvement in **at least one** of the six areas: waist circumference, Body Mass Index (BMI), blood pressure, weight, physical activity minutes, and eating habits.

- 7 participants improved in all 6 areas. (14%)
- 8 participants improved in 5 areas. (15%)
- 13 participants improved in 4 areas. (25%)
- 13 participants improved in 3 areas. (25%)
- 6 participants improved in 2 areas. (12%)
- 3 participants improved in 1 area. (6%)

- 36 improved their eating habits (69%)
- 36 decreased their weight. (69%)
- 34 decreased their BMI. (65%)
- 32 decreased their waist circumference. (62%)
- 25 decreased their blood pressure. (48%)
- 25 increased their physical activity minutes. (48%)

Average pounds lost per individual: 3.73!

The most pounds lost: 19.4!



Other Good Outcomes

Sample of Comments from All Participants Responses arranged in themes.

Tell me how this program has helped you.

- Theme 1: Awareness
 - Comments:
 - I have watched more of what I eat/ less snacks
 - Made me focus on fruits & vegetables
 - It made me realize my poor eating habits and lack of exercise
 - Made me aware of what I was “actually” eating!
 - Keeps me thinking about healthy exercise and eating habits
 - Made me focus on my daily calorie intake
- Theme 2: Healthier Eating
 - Comments:
 - Be more focused on my servings of fruits and vegetables
 - Helped me establish some better eating habits
 - Low salt/sodium intake and less eating out every week
 - It helped me manage my calorie intake
 - It helped me replace my “healthy” junk food with fruits or vegetables instead of veggie chips or reduced fat crackers/rice cakes
- Theme 3: Motivation
 - Comments:
 - Enjoyed emails weekly to keep me thinking about program
 - It did give me incentive to work on healthy choices
 - Motivated me to start making changes for better health
 - Materials help me feel motivated to make changes now
- Theme 4: Support
 - Comments:
 - It helped give me a “home base” to stay on track during a busy time
 - Employer support is great

What would have made this program better for you?

- Theme 1: Technical Details
 - Comments:
 - An app for my phone with bar scan
 - I thought it was hard to manage the SuperTracker and QuickTracker simultaneously. I discontinued the SuperTracker when the QuickTracker challenges began.
 - If SuperTracker would have uploaded everything from Fit Bit
 - Easier computer logging
 - Do QuickTracker right away
 - QuickTracker was the best – easy and fast
 - Foods not always easy to find in listing



- Theme 2: Timing
 - Comments:
 - Different time of year when I wasn't so busy
 - The time period that we tracked these things. Summer months can be a tough time
 - If it started in fall/winter months
 - More time dedicated to it
 - Motivation and time
- Theme 3: Other
 - Comments:
 - To have someone on-site once a week to visit with

What would help you keep eating healthier and being physically active?

- Theme 1: Accountability/Support
 - Comments:
 - Having friends/family keep me accountable
 - The tools & resources from this program will continue to be helpful
 - Wellness campaigns
 - Reminders
 - Group activities
 - Keep posting healthy recipes & articles on health
 - Tracking sheet for activities that I have to share with someone
 - A challenge of the day
- Theme 2: Motivation
 - Comments:
 - My self-drive to keep up with extra physical activity
 - Grand kids
 - Maintain my motivation and seeing results
- Theme 3: Other
 - Comments:
 - It's a matter of time prioritizing
 - Fresh veggies year round
 - Less stress at work
 - Need to be more disciplined

What other programs would you like to see as a focus in your workplace?

- List from greatest to least interest
 - Stress Management
 - Healthy Eating/Physical Activity
 - Losing or Maintaining Weight
 - Other:
 - Buddy system with a staff member
 - Flexibility
 - Sleeping



Appendix F

<u>Breeza</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-2.00	3.10	-5.25	1.25	0.175
Waist Circumference (in.)	0.67	1.69	-1.11	2.44	0.379
BMI	-0.13	0.90	-1.08	0.81	0.732
Weight (lbs.)	-1.13	6.80	-8.27	6.00	0.700
Physical Activity (Minutes/Day)	10.08	21.60	-12.58	32.75	0.305
Physical Activity (Days/Week)	0.17	1.63	-1.55	1.88	0.813
Systolic (bpm)	-1.50	9.52	-11.49	8.49	0.716
Diastolic (bpm)	1.33	5.75	-4.70	7.37	0.595

<u>David Place</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-4.25	2.50	-8.23	-0.27	0.042
Waist Circumference (in.)	-0.94	0.52	-1.76	-0.12	0.036
BMI	-1.38	1.14	-3.20	0.45	0.096
Weight (lbs.)	-8.15	7.22	-19.63	3.33	0.109
Physical Activity (Minutes/Day)	6.25	8.29	-6.94	19.44	0.229
Physical Activity (Days/Week)	1.63	1.70	-1.08	4.33	0.152
Systolic (bpm)	-1.25	10.69	-18.26	15.76	0.830
Diastolic (bpm)	0.250	6.34	-9.85	10.35	0.942

<u>Four Corners</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-1.83	2.32	-4.26	0.60	0.110
Waist Circumference (in.)	0.22	1.56	-2.26	2.69	0.789
BMI	-0.43	0.52	-1.25	0.40	0.200
Weight (lbs.)	-2.15	3.38	-7.52	3.22	0.292
Physical Activity (Minutes/Day)	-4.42	8.06	-12.88	4.05	0.237
Physical Activity (Days/Week)	-0.83	1.02	-1.15	-.99	0.849
Systolic (bpm)	-1.83	14.13	-16.67	13.00	0.764
Diastolic (bpm)	-1.17	8.75	-10.35	8.02	0.757

<u>Frontier Cooperative</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-1.11	1.54	-2.29	0.07	0.062
Waist Circumference (in.)	-0.50	1.15	-1.38	0.38	0.227
BMI	1.22	2.41	-1.37	0.67	0.443
Weight (lbs.)	-2.25	6.81	-7.94	3.44	0.381
Physical Activity (Minutes/Day)	11.67	30.95	-12.12	35.46	0.291
Physical Activity (Days/Week)	0.00	1.68	-1.29	1.29	1.00
Systolic (bpm)	-3.78	8.06	-9.97	2.42	0.197
Diastolic (bpm)	-1.00	7.25	-6.57	4.57	0.690

<u>Jones Bank</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-2.33	2.06	-3.64	-1.02	0.002
Waist Circumference (in.)					
BMI	-0.60	1.13	-1.32	0.12	0.094
Weight (lbs.)	-3.50	6.19	-7.44	0.44	0.076
Physical Activity (Minutes/Day)	-0.67	2.31	-2.13	0.80	0.339
Physical Activity (Days/Week)	0.58	0.97	-0.35	1.20	0.062
Systolic (bpm)	-2.25	8.21	-7.47	2.97	0.363
Diastolic (bpm)	-1.17	6.18	-5.09	2.76	0.526

<u>Ridgewood</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-1.00	1.73	-5.30	3.30	0.423
Waist Circumference (in.)	-1.50	0.50	-2.74	-0.26	0.035
BMI	-1.00	0.44	-2.08	0.08	0.058
Weight (lbs.)	-4.13	1.80	-8.61	0.35	0.058
Physical Activity (Minutes/Day)	15.00	25.98	-49.54	79.54	0.423
Physical Activity (Days/Week)	No change				
Systolic (bpm)	-6.00	9.17	-28.77	16.77	0.374
Diastolic (bpm)	1.33	13.01	-31.00	33.66	0.875

<u>UTC Aerospace Systems</u>	Mean	Standard Deviation	95% Confidence Interval		P-Value
			Lower	Upper	
Nutrition Survey	-1.00	1.28	-1.81	-0.19	0.020
Waist Circumference (in.)	-1.04	1.38	-1.92	-0.16	0.024
BMI	-0.85	0.78	-1.29	-0.42	0.001
Weight (lbs.)	-4.92	5.00	-7.69	-2.15	0.002
Physical Activity (Minutes/Day)	21.25	38.80	-3.40	45.90	0.084
Physical Activity (Days/Week)	0.42	1.70	-0.66	1.50	0.411
Systolic (bpm)	-2.25	8.21	-7.47	2.97	0.363
Diastolic (bpm)	-1.17	6.18	-5.09	2.76	0.526

Differences in all individuals' pretest and posttest measurements separated by business.